

**HEALTH FOR THE PEOPLE, BY THE PEOPLE:
CAPACITY BUILDING AT THE COMMUNITY LEVEL
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**USAID CHILD SURVIVAL PROJECT (CS-IX) - CHILIPA, MALAWI
SAVE THE CHILDREN FEDERATION/US**

**FINAL EVALUATION
MAY 26 -JUNE 5, 1997**

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Acknowledgment to Chiiipa Area and Project Staffs from Evaluation Team:
Over the last 2 weeks a national and international team have been privileged to carry out the Final Evaluation of the Chilipa Child Survival Project. First, we want to express our appreciation for the excellent support and hospitality provided at all levels. As you will see in the report, much has been achieved and you should be proud of the great steps forward in providing health at the community level. You have earned our admiration and commendation. It is hoped that this report will provide new insights into your achievements, challenges, and opportunities.

EXECUTIVE SUMMARY

- In response to US Congressional Legislation authorizing funds to increase the survival of high risk children, and a USAID Request for Proposals (RFP), Save the Children Federation (US) was awarded a 3 year grant to implement a Child Survival-IX Project (CS-IX) in the Chilipa Area, Mangochi District, Malawi.
- Chilipa Area is located in a remote mountainous region 60 km west of Mangochi. The area is accessible by a dirt road, not always navigable during the January-March rainy season. The population of 40,000 is poor and underserved. An estimated one in every four children born dies before his/her fifth birthday. Major causes of mortality are Malaria, diarrhea, Pneumonia, undernutrition, and conditions related to pregnancy and delivery.
- Health services in the area are provided by three partially staffed health centers. Because of poverty, distances, and occasional stock-outs of drugs, utilization of the three health facilities is limited.
- The Chilipa project was designed to strengthen health promotion, prevention, and case management at the community level through:
 - (1) Volunteer Village Health Promoters (VHPs) responsible for providing advocacy and support to 60-120 households;
 - (2) Establishment in villages greater than 5 km from the Health Center of Drug Boxes containing 5 essential drugs for the major killers of children;
 - (3) Reformulation of moribund Village Health Committees (VHCs) into Health Action Teams (VHATs) with delegated task-specific responsibilities for its members;
 - (4) Expansion in the number of Health Surveillance Assistants (HSAs) from 7 to 30 to support and supervise community activities and ;
 - (5) Increase in the number of under-five outreach clinics from 7-15 providing immunization, growth monitoring, and nutrition counseling.
- As required by the USAID Cooperative Agreement, a final evaluation of the project was carried out from May 26-June 5, 1997. The evaluation team visited 12 of 42 villages and interviewed 103 mothers, 12 VHPs, 7 TBAs, 11 VHATs, 7 HSAs, and staff members of the 3 Health Centers.
- The Chilipa project has been successful in establishing a developmentally sound, brilliantly executed community health development strategy.
- Based on interviews with mothers, VHPs, VHATs, and TBAs, the evaluation team is convinced that the basic elements for sustained community health development are in place. These are best captured by

quotes from the VHPs: “working with people to improve health of village” or “bring improvement to all aspects of health” or “help the community”

- VHATs uniformly reported that their villagers were cleaner and that their capacity to solve their own problems had improved (one had built a TBA birthing hut and a growth monitoring clinic.
- The availability of essential drugs (i.e, SP for Malaria) in the community at a time when some of the HCs were out of stock was striking.
- Project was successful in strengthening the capacity of mothers and communities for health promotion, prevention, and management of illness. Mothers’ awareness of illness and response increased. 32.3% of mothers used appropriate home therapy as the initial treatment of diarrhea.
- Treatment of diarrhea with ORS for diarrhea cases occurring in last 2 weeks increased from 12.4% at 1993 baseline KPC, to 67.0% at 1997 final KPC. 78.5% of mothers knew the correct formula for mixing ORS and/or SSS and the method of administration.
- Most, but not all, of the objectives listed in the Detailed Implementation Plan (DIP) were achieved. Objectives not met included Vitamin A every 6 months (36% vs target of 85%), and Measles vaccine coverage (65% vs target of 85%).
- The program invested heavily in training providing 3644 person days of training at all levels. Project was less effective in developing a system of continuing education to support and further develop knowledge and skills of trainees.
- Chilipa project was community-based and did not systematically work toward strengthening the essential linkages with the health centers until word was received that the expected extension of funding would not occur.
- Health centers lack the concept of a service area for which they are responsible, and the potential of a unified team stretching from households, to community-based providers, to HSAs, to the health center.
- For two reasons, the project has a low probability of sustaining the benefits achieved: 1) the failure from the beginning to establish and support community, HSA, HC, and district linkages (due in part to USAID guidance, and in part to failure to conceptualize its importance), and; 2) the brevity of implementation time (2 + years).

- The planned phase-over of 20 HSAs from SCF to Government failed when only 5 of 20 HSAs were hired. This has decreased the all-important support to the community level, and risks the investment in community infrastructure development.
- The Chilipa Project has learned lessons which have relevance to Mangochi District, other NGOs working in Malawi, and for future USAID policy. In many respects this project has focused more on developing infrastructure and capacity building than on achieving high rates of coverage.
- Much has been achieved. The challenging task now faced by the District Health Officer (DHO) and his team is building on the foundation already established. It is hoped that the upcoming USAID District Support Project (CHAPS) will be approved for Mangochi District. It has the potential to address the issues identified by the evaluation team.
- At the District debriefing, DHO closed with two comments: 1) “the challenge is on us, and 2) CHAPS is our life-line to the future.”

LESSONS LEARNED

- *There is great underutilized potential for increased responsibility for health at the village level in rural Africa*
- The development of Village Health Promoters, Village Health Action Teams, Revolving Drug Funds, and Health Surveillance Assistants has been successful in establishing village-based health care. *The Chilipa model has replicability for rural Malawi, both for MOH and NGOs.*
- The project, through its training program, strengthened the capacity of the household and community links in the chain (VHP, TBA, HSA, and VHAT). *Level-specific training based on an on-site assessment of needs, participatory learning, and development of support mechanisms are key to improved service delivery.*
- The project was less successful in strengthening the linkages between levels and in developing a continuing education strategy, both essential to supporting and developing knowledge, skills and motivation of trained staff. *Establishment and maintenance of solid linkages require monthly meetings and field visits designed to support good work, identify and solve problems, provide continuing education and establish work plans directed at activities which have a high probability of improving health.*

Basic to sustainability and improved health is the concept of a Health Center catchment area in which the area team is responsible for health services to the entire population, not just those attending facilities.
Recognition of the importance of a HC catchment area and a team built on mutual respect and admiration from community to HC is essential to sustained development.

- Data systems used by DRF, VHP, HSA, and HC are weak. Data have little or no use at level of collection, users receive no feedback, and systems rapidly break down because they are not used.
Data systems need to be simple and user-friendly, providing data for action with use at level of collection.

The initial decision not to link with the MOH was unfortunate and decreases the potential for sustainability. *Linkages essential for sustainability are necessary from the beginning.*

OVERVIEW

In response to a USAID Child Survival IX RFP, Save the Children Federation/US (SCF), in consultation with the Malawi Ministry of Health, submitted a proposal to address maternal and child health needs in a remote, poor, underserved area in Mangochi District. Chilipa, an isolated mountainous area 60 km west of Mangochi Town, is approximately 25 km long and 10 km wide and has an estimated population of 40,000 people (Appendix I). The area is accessible only by a severely rutted dirt road, which is not always navigable during the December to March rainy season. Using available data, best estimates of basic vital statistics for the project area are summarized in Table 1.

Table 1 - Estimated Vital Statistics for Chilipa Area

Vital Statistic	Estimate	Source
Population	40,000	1982 census projected & Project Census
Total Fertility Rate	6.88	MDHS 1992 Rural
Crude Birth Rate	43.2 /I 000	MDHS 1992 Rural
Know Modern Method FP	F 91.8, M 94.6	MDHS 1992 Rural
Use Modern Method FP	F 6.3, M 12.0	MDHS 1992 Rural
Neonatal Mortality	48.6	MDHS 1992 Rural
Infant Mortality	13811000	MDHS 1992 Rural
Child (I-4)	122.9	MDHS 1992 Rural
Under Five (O-5)	243.9; 245 **	MDHS 1992 Rural & Evaluation Survey

** The 103 mothers surveyed in project area reported 304 live children and 96 dead children. Most of the dead were in the under five category. This estimate is complicated by the reference time period (the reproductive life of the respondents), and the fact that the children under five had not completely passed through the period of risk. Moreover, live births and neonatal deaths were likely underestimated.

The high rates of mortality result from the synergistic interaction of proximate determinants (poverty, low levels of education), high fertility, limited access to quality maternal health services, poor environmental sanitation (water and sewage), high rates of exposure to lethal pathogens (diseases preventable by immunization, diarrhea, pneumonia, and malaria), and limited access to quality promotive, preventive, and curative health services.

The Chilipa project **was** approved for funding with a project initiation date of September 30, 1993 with an end of project date (EOP) of September 30, 1996. An expected second stage of funding became unavailable due to a change in RFP criteria. The project was, however, authorized for a one year no-cost extension with an EOP of September 30, 1997. SCF is currently competing for a Community Health Partnerships RFP (CHAPS) to address maternal and child health issues through a district support project.

PROJECT VISION

Interviews with members of the project staff capture the hoped-for results of the **Malawi CS IX** project:

- * "Increase confidence of household as to steps to be taken at the household level to promote survival and wellness";
- "Increase community ownership of project activities";
- * "Strengthen collaboration and partnership with community, MOH, and other health providers to enhance impact of PHC and child survival";
- * "Improved knowledge, practices, coverage, survival and wellness."

PROJECT STRATEGIES

Project Staff provided evaluation team with an excellent chronology of implementation steps through provision of written materials (Appendix II) and oral briefings (Appendix III). Project strategies focused on activities at the community level and establishment of systems to support activities peripheral to the health center including:

Community

- Recruitment and training of Village Health Promoters (VHPs) to promote **health** and wellness and to provide guidance and support for common child hood illnesses

- Establishment of a Revolving Drug Fund (DRF) to ensure the availability of five drugs in communities more than 5 km away from a health center (HC): aspirin, acetaminophen, cotrimoxazole, eye ointment, sulfadoxine-pyrimethamine. Oral Rehydration Salts (ORS) are also provided by the district through the health centers.
- Village support to and oversight of the VHPs was provided initially through Village Health Committees (VHCs) and later through Village Health Action Teams. (VHATs).

Community Support

- Support for community activities was provided through appointment of 22 Health Surveillance Agents, each of whom supports and supervises 1 to 5 villages.
- HSAs are provided support by two Project Supervisors residing in the Chilipa Project Area.

Project Support

Project direction and support is provided through the SCF office in Mangochi.

Linkage to Health System

- Project area selection was based on the recommendation and approval of the District Health Officer
- Because of instructions from USAID (a visit from the Chief, Child Survival and Health, PVC/BHR) “forbidding involvement in health centers” and a lack of formal partnership agreements with the MOH, linkages with the MOH were loose, except for logistics support to expand outreach clinics for growth monitoring, EPI, and maternal health.
- When the CS XII guidelines precluded extension of the project, meetings were held with district authorities to facilitate the shifting over of community activities to the MOH, to strengthen linkages between the project and the 3 Health Centers serving the Project Area, and to strengthen and coordinate partnerships at the district level.

EVALUATION AND EVALUATION FRAMEWORK

As required by the Cooperative Agreement between USAID and SCF, each child survival project is required to conduct a final evaluation. This report summarizes the evaluation which took place in Malawi from May 27 to June 5, 1997.

Evaluation utilized CS-IX Guidelines for Final Evaluation, dated May 3, 1996.

Evaluation team members are listed in Appendix IV-A. Agreed-upon schedule of work is outlined in Appendix IV-B.

Using the Pathway for Survival developed by the USAID-funded BASICS Project, and modified by David Marsh at the recent USAID/BASICS/PVO meeting on Integrated Management of the Childhood Illness (IMCI), the evaluation team adopted the expanded Pathway for Survival as a framework for the evaluation, (Figure 1).

EVALUATION QUESTIONS

- How successful has the project been in strengthening capacity for promotion, prevention, and treatment at the community level?
- How much progress has been made toward the targets set out in the Detailed Implementation Plan (DIP)?
- What is the potential for sustaining project benefits?
- What can be done during the last 4 months of the project and in the proposed follow-on by USAID CHAPS project to sustain and build upon the achievements?

EVALUATION METHODS

- Evaluation team was given an oral briefing on the project by SCF staff.
- Evaluation team reviewed the extensive project files
- Evaluation team reviewed and compared the Baseline, Midterm, and Final KPC surveys
- On May 29 and 30, surveys were carried out in the project area by 3 teams. Each team assessed one of three HCs and its catchment area, 4-6 villages per HC area purposely chosen to represent near and far villages, and 2-4 Health Surveillance Assistants. In each village, efforts were made to interview members of the VHCNHAT, Village Health Promoters (VHP), including the VHP responsible for the Drug Revolving Fund (DRF), TBAs, and 10 mothers. Included in the selection was a non-impact area village which provides, from the qualitative perspective, a comparison village.
- Using the “gallery technique” with “yellow stickies” the team shared their findings for each of 7 levels (Mothers, VHP, DRF, TBA, VHAT, HSA, HC).
- Summaries of findings at each level were prepared for each of the 7 levels in three categories: 1) findings, 2) achievements, 3) issues and potential actions.
- On June 2, the team returned to the three health centers to share findings at meetings of HC staff, HSAs, VHATs and DRF VHPs.
- On June 3, the team debriefed with the DHO.

- On June 5, the team debriefed with representatives of USAID Malawi and SCF Lilongwe.

EVALUATION RESULTS

Note: The following summary of evaluation findings, achievements, and issues reflects a two week collaborative effort of MOH staff working in Chilipa, local and international SCF staff, representatives of the Mangochi District Southern Regional MOHs, and an outside evaluator. The sections below reflect our observations and interpretations. They are presented in detail in the hope that they will be useful to those responsible for the current and future health of the Chilipa people.

Mothers

Findings

- 103 mothers were interviewed in 10 villages
- Mothers reported 396 live births of which 96 had died (approximately 1/4 of births)
- Description of symptoms prior to death on a small sub-sample of deaths showed fever/malaria and perinatal to be the prime causes of under-five deaths. Of 37 deaths, symptoms associated with the death were fever/malaria/convulsions (11), perinatal, including still births (10), diarrhea/dysentery (7), Measles (5), malnutrition (2), and other (2).
- 94.6% of mothers knew their VHP
- Where a village had a DRF, it was used by nearly half the mothers as the primary source of care (Table 2).

Table 2. Initial Treatment of Fever for 2 Days (N=93)

	Home Rx No SP	Home Rx Yes SP	Went To VHP or HSA	Went to HC
Drug Box in Village	14.3%	11.7%	42.9%	31.2%
No Drug Box	15.4%	7.7%	3.8%	73.1%

This was less true for watery diarrhea, since ORS were not a formal part of the system and were in short supply prior to the survey (Table 3).

Table 3. Initial Treatment of Diarrhea (N=93) by %

	Incorrect Rx	Home Fluids, SSS, or ORS	Went to VHP or HSA	Went to HC
Drug Box in Village	7.8	29.9	16.9	45.5
No Drug Box	0	43.8	18.8	37.5
Total Intervention Villages (N=93)	4.3	32.3	17.2	44.1
Comparison Villages N=10	20.0	10.0	NA	90.0

- As noted above, 32.3% of impact area mothers knew how to provide ORT in the home, 3 times the level of the small sample from the non-impact area comparison village. A new arrival to the impact area from Blantyre lacked basic information on home treatment.
- Three questions were used to assess the quality of ORT administration, including correct formulation (SSS as 3 “Coke” bottles of water, 1 bottle top salt, 10 bottle tops of sugar; or 1 packet of ORS and 3 “coke” bottles of water), amount and frequency of feeding, e.g., frequent small amounts, and maximum time of storage (24 hours). Of impact area mothers, 78.5% met the three criteria, while only 50% of the comparison village mothers met the same criteria. Although the numbers are small and not statistically significant, the comparison is suggestive of program impact.
- Reasons given for taking a child to a HC included: severe illness (37), child getting worse after DRF or home therapy (18), and no improvement in condition 48-72 hours after home or DRF treatment (49). Only 8 mentioned going to HC directly when child developed mild illness.

Achievements

- Mothers identify the VHPs as a knowledgeable source of information on illness in their communities.

Mothers in the impact area are showing increased knowledge and skills in the treatment of their children. They identify several options for treating diarrhea: 1) home therapy with increased fluids, breast feeding, porridges, and SSS; 2) access to advice from the VHP; 3) access to the DRF for ORS packets; and 4) referral to HC for severe illness characterized by high fever, loss of appetite, “heavy boweling”, decreased activity and dehydration.

Issues Identified (I) and Potential Actions (A)

- I** Mothers are increasingly aware of the right things to do, but are not always aware of how to do these things right. Misinformation exists as to treatment of fever, (frequently only with “cafenol” or aspirin) and diarrhea (3 mothers in impact area described ORS dosage as 1 teaspoon three times a day).
- A** VHPs need to be aware of the key high impact messages related to child health, know how to convey them in an understandable form, and repeat them on a regular basis. Sustaining improvements achieved by the project will require an improvement in the frequency and quality of mother-VHP interactions. As discussed below, this will require improving VHP skills and performance in those aspects of child care that make a difference, e.g. feeding, immunization, and case management. This is achievable within the current system, provided the HC leadership is strengthened in continuing education, assessment, support, and problem solving.
- Understanding of three basic prevention strategies (exclusive breast feeding for 3 months, weaning with calorie-dense protein supplemental foods at 4-6 months, and immunization) is incomplete. Systems of support and monitoring are not in place to be proactive in terms of encouraging and supporting appropriate behaviors.
- A** Appropriate feeding is the most important behavior that needs to be conveyed to mothers. These messages are more important than the recording activities which mothers described as the main content of VHP-Mother contacts.

Village Health Promoters (VHPs)

Findings

- VHPs are selected from the village by the VHC. Requirements include residence in the village and basic literacy.
- During the project, 134 VHPs were trained in a course lasting 6 days. The curriculum was a “watered-down” version of HSA training and focused on under-fives, WCBA, DRF, and HE.
- Women are assigned responsibility for 60-120 houses around their homes, responsibility for numbering the houses and preparing a

household roster, and visiting the mothers to provide health education and to identify and solve problems.

- VHP-Mother contact also took place at outreach clinics where weighing and immunization were carried out.

Achievements

- VHPs are an important and essential part of Primary Health Care (PHC) and empowerment.
- VHPs are knowledgeable of and committed to improving their communities; this commitment was more obvious in the VHPs entrusted with the DRF. This is best captured by quotes from VHPs on the meaning of their jobs: (1) “I advise mothers on health and importance of under-five and immunization clinics;” (2) “access to knowledge and interaction with others;” (3) “brings improvements to all aspects of health in the village;” (4) “to be a person who assists in improving health in the village without pay.”
- VHPs have been effective in working with their VHATs to improve village cleanliness, promote building of latrines and rubbish pits, and promote cleanliness.
- Many VHPs are identified as the primary source of advice and care for health problems by mothers in their communities.
- 12 of 12 VHPs expressed interest in continuing in their volunteer role “as long as the mothers keep coming”.

Issues Identified and Potential Actions

- I VHP visits are not as common as expected or as described by VHPs themselves (twice per month). Forty-one of 93 (44%) mothers reported visiting a VHP in the last 5 months; 32 of 93 (34%) reported being visited by a VHP in last 2 months (18 in May and 14 in April).
- A Visits need to take place on a monthly basis, either by household visits or group meetings.
- I Content of visits, as reported by mothers, consisted primarily of promoting environmental sanitation and record keeping. Contents of these visits are summarized below, (Table 4).

Table 4. Mother's Reports of Contents of VHP Visits (N=43)

Reason	Number	Percent
Sanitation	16	37
Filling Roster	9	21
Malaria Education	8	19
Feeding (2), Weighing (3), Nutrition (1)	6	13
Immunization (I), FP (1)	2	5
Child Care	2	5

- A** VHPs, if they are to keep active and productive, require a well-planned strategy of support and in-service education.
- I** Record books are complex, arduous, and difficult to use. They are not seen or used as a source of data for action.
- A** With assistance of District and Health Center Staffs, HSA, and VHPs, develop and test a user-friendly adaptation of current record book to assist VHP in health promotion, assessment, problem identification, and counseling. An option for testing might be an exercise book with a single page for each household including: 1) house number and name of HH, 2) pregnancies and whether ANC and TT visits had been completed, 3) deliveries by whom, size of baby, and status, 4) births with follow up for immunization and vitamin A, and 5) slope of growth and counseling provided. On back of page, dates of visits, issues identified, and actions taken would be recorded. Alternatively, exercise books could track all births on one page (to assure vaccinations and Vitamin A) and/or the expected month of delivery for all pregnancies (to assure antenatal care and assess outcome.)
- I** VHPs lack understanding of their potential as change agents in their villages in terms of health promotion, assessment, counseling, and the various other important roles they have been given, i.e. informing of upcoming outreach clinics (possibly as child-to-child exercise through school), meetings of mothers and fathers, and individual visits for affirmation, assessment, and counseling.
- A** Utilize HSA visits for VHP continuing education and support.

- I While VHPs are visited regularly by their HSAs, there is little recognition, support, and appreciation for their voluntary labor from the HCs. Failure of HC teams to show up for scheduled immunization sessions (two months in a row in one village) is an embarrassment and a reason for drop-out of VHPs. In remote areas where rains frequently make travel impossible, non-scheduling is preferable to not showing up.
- A Identify the VHPs as important members of the HC area team and the essential link between HSAs and the community. Actualize this affirmation through monthly meetings of HSAs with their VHPs with attendance by HC staff at least once quarterly.
- I There is no standardized format for referral of patients and feedback to the VHP.
- A Develop and test a bidirectional format for referral (diagnosis and treatment given) and findings at HC (diagnosis and future treatment for village follow-up).

Revolving Drug Funds (DRF)

Findinas

- The Chilipa project, in cooperation with VHC/VHATs, established DRFs in 30 of the project's 48 villages to increase availability and accessibility of drugs to treat the 4 most common childhood infections (fever/Malaria, Pneumonia, diarrhea, and eye infections).
- One VHP in each selected village was chosen by the VHAT to manage the drug box. Villages were also required to provide a lockable box.
- Sixty VHPs were provided DRF training in assessment and treatment of 4 childhood illnesses: fever/Malaria, Pneumonia, diarrhea, and eye infections. DRF managers were also provided job aids for appropriate age-specific doses, and training in records management, including name, age, diagnosis, drug and dose, and money received.

Each village was provided a lock, and UNICEF provided a starter supply of aspirin, acetaminophen, cotrimoxazole, sulfadoxine-pyrimethamine (SP), and antibiotic eye ointment. ORS packets were also kept in the box. Any money made from sale of drugs is used to replenish the stock through the SCF Office in Chilipa and, eventually, through the district (MOH) drug store. Prices are set a little higher than current commercial prices to allow for future inflation.

- Each DRF VHP serves as a community resource for clinical assessment and treatment. VHPs are also trained to identify danger signs requiring immediate referral to the HC. In such cases, the initial dose of treatment is provide at the time of referral.

Achievements

- The evaluation team interviewed 9 VHPs responsible for DRF management.
- All but 2 of the boxes were locked. There were adequate supplies of 4 of the drugs, and a shortage of ASA and ORT (Chilipa SCF out of stock). All had Panadol as a substitute for ASA. VHPs reported preference for ASA because of its cheaper cost.
- Villages cited the availability of quality drugs at reasonable prices as a major, if not *the* major, contribution of the project.
- DRFs are utilized as the initial point of assessment and treatment for childhood illnesses by many mothers in the DRF village and surrounding villages.
- VHPs interviewed seemed to have mastered the basic skills of assessment and treatment.
- A review of DRF records indicated good VHP knowledge of appropriate dosages for age.
- VHPs also correctly identified conditions needing immediate referral to HC.

Issues (I) identified and Potential Actions (A)

- I Most villages consider the drug box as an SCF Drug Box and not a village-owned drug box. Most see SCF as the only source for drug replacement.
- A. VHATs need to be informed of their ownership of and responsibility for the box. Mechanisms need to be established to enable replenishment of drugs through DHO channels. A consultant from the CS-V project (which used DRFs that continue up to the present, 3 years after the project's completion), a VHAT member, and DRF VHP might be utilized for continuing education.
- I Most record systems were not auditable for a number of reasons, including: absence of pen or pencil, absence from village due to family

illness and deaths, deputing use of box to untrained person. Monthly tallies of credits and debits were not kept.

A Project needs to work with DRFs to develop a simplified record system and establish standards and guidelines for record keeping. DRF VHPs need to be trained in use of guidelines. Single page record for each month listing date, patient, age, diagnosis, treatment, amount of money received, and money owed (if any) could be tested. Total of amount taken and owed would be added to the running total and reported to the VHAT.

I Boxes are not checked on a regular basis.

A HSA and VHAT DRF monitor need to be trained in a practical approach to drug box audit. Money needs to be counted to be sure it agrees with records.

I Large amounts of drug supplied per box, 1000 tablet bottle, limits ability to monitor drug stocks.

A Rapid tests for measuring quantity of drugs (a ruler or a plastic tube) might be explored. Use of smaller drug amounts in plastic bags should be tested.

I Availability of boxes, especially in large villages, is inconsistent due to travel of VHP or distance.

A VHAT need to discuss feasibility of additional drug boxes in larger villages, either as separate boxes or depot stocks (50 doses of each drug and 5 eye ointments).

I Although not part of the initial DRF, VHPs also are depot holders for ORS packets. Unfortunately, packets have been out of stock in the area.

A Each Drug Box needs to have 10 ORS packets with a reorder level of 5 packets. VHPs also need refresher training, including job aids on preparation of home fluids or SSS as a back-up.

While amount owed was small in most villages, in one village the amount owed had reached a level of 360 Kwacha (about USD 24), which places the box at risk.

A Importance of methods for addressing debits needs to be developed and shared with VHPs and VHATs. A monthly report of income and debit should be provided to the VHAT.

- I Support and audit of DRFs has been sporadic since the phasing out of SCF HSAs. One phased-over HSA now working for government stopped checking DRFs in her area because it was not her responsibility.
- A As part of the HC team, one individual needs to be identified as responsible for supporting and monitoring each DRF. As indicated above, additional training is needed to improve skills in this area.
- I Initial training does not ensure sustained quality performance. VHPs need refresher training in assessment and diagnosis, especially in the identification of danger signs requiring immediate referral.
- A Establish continuing education plans for DRF VHPs, including “disease of the month” during HSA monthly visit and, perhaps, quarterly visits to HC to observe cases.

Traditional Birth Attendants (TBA)

Findings

- The project provided training to 20 TBAs, 7 of whom were interviewed by the evaluation team. These ranged in age from 33-55 years and have been practicing 3-15 years. They deliver 1-4 babies per month.

Achievements

- Trained TBAs were providing prenatal care and were aware of prenatal factors requiring referral, such as abnormal lie and high risk pregnancies
- All reported that the training had improved the quality of their deliveries including: 1) confirming contractions, 2) having appropriate materials for deliveries, 3) preparing site for delivery, 4) delivering babies, 5) tying cord, 6) instructing mothers on breast feeding and nutrition, and 7) providing instructions in personal hygiene.
- All trained TBAs use gloves for delivery; delivery kits, provided to the first 10 trainees, were identified as very useful.
- One TBA with her HSA had solicited assistance of VHAT in providing transport for emergency obstetrical care (EOC). This same VHAT had built a birthing hut for the village.

In one HC area, an effective bidirectional referral linkage had been established with referral note from TBA to HC and return note from HC to TBA.

Issues (I) and Potential Actions (A)

- I While TBAs have received training, they lack the sustainable education and support to maintain and improve their skills. Support to date has been SCF-dependent.
- A Strengthen linkages between midwife at HC and TBAs through meetings and on site visits. Posting of TBAs to HC as in-service training should be considered. Refresher courses should be considered.
- I 10 recent TBA trainees did not receive delivery kits.
- A Supply delivery kits to 10 trained TBAs without kits.
- I TBAs do not always have access to transport for EOC.
- A Use support of midwife and HSA with VHAT to develop a transport plan for delivery emergencies. Consider use of bicycle ambulances, as used elsewhere in Malawi.
- I Interview of an untrained TBA in the comparison village identified some dangerous practices, including bare-handed delivery, bare-handed manual extraction of placenta from uterus, and a feeling that she could handle all emergencies and didn't need to refer. This TBA did make a request for training.
- A Inventory all TBAs in HC catchment areas and refer for training, giving priority to those performing the most deliveries.

Village Health Committees (VHC) and Village Health Action Teams (VHAT)

Findings

- In October 1993, SCF, as part of their CS-IX project, revived the VHCs that had previously existed in Mangochi District. Committees were reformulated as Village Health Action Teams (VHAT) following the recommendation of the mid-term evaluation, and using the football (soccer) team concept as an analogy, assigning specific roles and tasks to members of the team, e.g., growth monitoring, environmental sanitation, DRF oversight, etc., with the traditional village head serving as captain. The purpose of the VHATs is to provide support for the VHPs and HSAs to improve the health of the village, especially that of women and children.

- The VHCs work with the VHPs and HSAs to improve health status of the community through promotion of improved health behaviors, including feeding practices, family planning, immunization, environmental sanitation, and identification and treatment of illness. The VHCs also work with the TBAs to ensure they receive the necessary support for deliveries and transport of pregnant women in the villages. In one village they constructed a birthing hut. They are also responsible for supervising the DRF.
- Thirteen VHAT captains were interviewed as part of the evaluation; 11 reported their teams to be active; six had meetings in the last month. Committee members range in size from 5 to 18 players with a median of 10.
- In five of the 11 villages, all of the VHATs have been trained; the number trained in other villages ranged from 2-6. In total, 288 VHAT members have undergone three days of training using a self-generated assessment, role playing, and participatory learning.

Achievements

- Effective partnerships functioning between HSAs, VHPs, and VHATs
- Availability of a functioning drug box, making quality drugs available in the village at reasonable cost
- Construction of a building to house an under-fives clinics in 1 village
- Improvement in water and sanitation, including construction of pit latrines
- Implementation of a literacy program in the project area
- Implementation of impregnated malaria curtains project
- Improved health services for the children, including immunization, growth monitoring, and vitamin A.
- Assistance in emergency transport for women in labor referred by TBA
- A strong sense of having made a difference and an ability to help themselves
- The captains reported that the VHPs and HSAs have contributed to the villages in many ways, especially in sanitation and water chlorination. Other activities mentioned by the captains included immunization, growth

monitoring, and the DRFs, which brought effective treatment of Pneumonia, diarrhea, and Malaria to the village level.

- Captains reported that there has been much improvement in their villages over the last four years, both in terms of the capacity to identify and solve problems, and in the specific activities described below.

Issues and Potential Actions

- | | |
|---|---|
| I | VHATs are not perceived as or perceive themselves to be key players on the HC Area Team. |
| A | Acknowledge in writing and by HC representation at quarterly meetings the VHATs as important partners in upgrading the health of the HC catchment area. |
| I | While most VHAT members received initial training, a formal mechanism of continuing education and support needed to further develop skills and knowledge was not identified. |
| A | Alternative forms of continuing education need to be identified and tested. Use expertise of superior performers (HSAs, VHPs, and DRFs) to upgrade capacity of other HSAs and VHPs to support VHATs. |
| I | Standards of performance and practices, e.g., for monitoring the DRF, are not well understood. |
| A | As discussed above, new simple understandable procedures need to be developed and tested. |
| I | Villages performing well receive little recognition |
| A | Consider establishment of a monthly or quarterly Gold Star Village Award to recognize villages meeting standards of excellence established jointly by those working at village level. |
| I | Village catchment areas are not well defined. |
| A | Develop village maps that show important aspects of health program, including: 1) safe water sources, 2) outreach clinics, 3) VHP homes and catchment areas. Village data boards which enable VHAT to publicly monitor their own health have potential and merit testing. |
| I | There is no mechanism to replace VHPs no longer wanting to serve |

- A Develop mechanisms to replace VHPs who no longer want to serve.
- I DRF drugs are not always available, due to travel of the VHP.
- A Reassess drug box location, accessibility, and use. Consider locating box or boxes at sites which maximize availability and accessibility.

Health Surveillance Assistants

Findings

- A major strategy of the SCF in expanding community-based service was expanding the number of HSAs from 7 to 30 to meet the MOH standard of 1/1300. The additional 23 HSAs were trained by district staff using the MOH 8 week Curriculum.

Achievements

- HSAs provide support and supervision to the VHPs and DRFs in their assigned communities.
- HSAs provide disease surveillance and referral in their assigned villages.
- HSAs also support the establishment and functioning of the VHAT
- Indirectly, through the VHAT and VHPs and directly, through community meetings and home visits, HSAs promote healthy behavior, including attendance at under five clinics at the health center or at outreach clinics, adoption of modern and traditional family planning methods, and environmental sanitation.
- HSAs met by the evaluation team were knowledgeable, committed, and enthusiastic.

Issues(I) and Potential Actions (A) for Capacity Strengthening

- I HSAs are the key link between the community and the formal health system. Although initial training is provided, they do not have a systematic approach to continuing education to keep them technically up-to-date.
- A Develop a strategy for providing continuing education through monthly meetings at the health center, timed to occur simultaneously with district team visits and, if necessary, short-term refresher courses.

- I Data collection by HSAs is perfunctory (monthly work plan and monthly report of places visited), and is not designed to assess critical issues, e.g., immunization coverage, prenatal care, slope of weight curve, at the local level. Its current format lacks the focus on “need to know” and “data for action”
- A District needs to assess need for and use of data at the HSA level. Any revision in format should be pretested before introduction.
- I Some HSAs do not have bicycles.
- A Provide bicycles to HSAs who do not have them
- I Linkages between HSAs and HC are weak.
- A HSAs should meet monthly with HC staff. Their reports should be channeled to the HC rather than the senior HSA for review, feedback, and problem solving. These monthly meetings should be used to affirm the importance and performance of VHPs, provide an opportunity for HSAs to share experiences among themselves, identify and solve problems, provide continuing education, and develop priorities for following month visits.
- I Only 5 of 20 SCF HSAs have been taken over by government. This reduces the availability of this key bridge to the community.
- A District staff needs to work with HC Staff to develop plans for HSA coverage of HC catchment areas.

Health Centers

The Chilipa Impact Area has three health centers (HC), each with a nominally different affiliation: Chilipa HC (local government), Kapiri HC (a Roman Catholic mission facility in the Christian Hospital Association of Malawi), and Phirilongwe HC (Ministry of Health). Kapiri HC is on the southern edge of the impact area, just five kilometers from Chilipa HC, thus, their drawing areas theoretically overlap. No HC is completely staffed (Appendix V-A). Only Phirilongwe has a medical assistant as the In-Charge, and no HC has a health assistant, the customary facility manager and supervisor of Health Surveillance Assistants. No HC has the ideal number of community personnel, neither HSAs nor community nurses.

For the evaluation we modified Murray and Manoncourt's¹ questionnaires (Sick Child Observation Checklist, Sick Child Exit Interview, Health Worker Interview, and Equipment and Supplies Checklist). We made unscheduled visits to each HC. In addition, we interviewed chiefs from 12 local villages regarding their opinion of the HC services.

We observed the clinical management of 9 children with complaints of diarrhea, vomiting, fever/Malaria, cough, and/or difficult breathing. We also performed caretaker exit interviews for these same children. We did not attempt to validate clinical diagnoses. All health providers were recently trained in an abbreviated, MOH-approved, Integrated Management of Childhood Illness (IMCI) algorithm.

Findings

Treatment of Sick Children (Table 5)

- Counseling was the best behavior observed, including: explaining the diagnosis (5 of 9), criteria for re-visit (6), and asking if the caretaker understood the plan (7). Facility servants distributed drugs due to staff shortages. They explained medication administration to most (6) caretakers. However, during exit interviews only 3 mothers were able to repeat the drugs and dosage schedules that were explained to them. These were all at a facility which charged for the medications, a practice which might have better captured caretakers' attention. Mothers correctly recalled information perhaps perceived as more directly related to their child's status (such as diagnoses [5] and re-visit criteria [8]) better than they recalled drug information.
- Clinical assessment skills were not as strong as counseling skills. Few children were assessed for the general danger signs (1 for convulsions and lethargy, 4 for ability to drink or breast feed). Three had respiratory rate counted by chest movement, all at one facility. On the other hand, providers assessed almost all (8) children for fever. Treatment for 5 children was consistent with the stated diagnoses.
- True "integrated" care was not strong, as neither immunizations nor nutritional advice were given. Moreover, providers did not request maternal cards to assess maternal preventive health care needs.

1

Murray J, S Manoncourt; *Integrated Health Facility Assessment Manual : Using Local Planning To Improve The Quality Of Child Case At Health Facilities*. Arlington (VA): BASICS Project, 1997.

Table 5. Treatment of Sick Children: Provider Observation and Caretaker Exit Interviews: Kapiri, Phirilongwe, and Chilipa Health Centers (n = 9 patients*)
Mangochi, Malawi, May 1997

Knowledge or Practice	Present	Absent
Intake (observation)		
Asked caretaker for health card	7	2
Asked caretaker for child's age	2	7
Measured child's weight	5	4
History (observation)		
Asked about ability to drink/breast feed	4	5
Asked about convulsions	1	8
Asked about lethargy/change in consciousness	1	8
Physical Examination (observation)		
Checked temperature (by touch or thermometer)	8	1
Examined chest and counted respiratory rate	3	6
Checked for skin turgor	5	4
Counseling (observation)		
Told caretaker the diagnosis(es)	5	4
Explained how to administer oral medications	6	3
Explained under what circumstances to return	6	3
Asked if caretaker understood	7	2
Asked if caretaker had any questions	3	6
Treatment (observation)		
Consistent with diagnosis(es)	5	4
Mother's understanding (exit interview)		
Understood diagnosis(es) as provider said	5	4
Understood treatment instructions given	3	6
Knew circumstances to return	8	1
Had a chance to ask questions	3	6
Preventive Activities (observation)		
Asked for maternal card	0	9
Gave immunizations to sick child	0	9

* patients under age five years with one or more of the following symptoms: diarrhea, vomiting, fever, malaria, difficulty breathing and/or cough

Drugs, Vaccines, Equipment and Supplies

- Many life-saving drugs (injectable penicillin and quinine, Vitamin A, ORS) and other important (aspirin) drugs were available (Appendix VI). On the other hand, some essential drugs were not always present, such as Fansidar and Bactrim. Only one drug at one facility was expired. Drug stock-outs were attributed to shortages at Central Medical Supply, "administrative difficulties," or transport problems.

- Vaccines were generally available except at the single facility with an inoperable refrigerator. One other facility lacked BCG. None had expired or frozen vaccines. All had cold packs; 2 had cold boxes (1 had a vaccine carrier instead).
- The presence of other equipment and supplies was variable (Appendix V-B). IEC materials were sparse, such as megaphones (0), counseling cards/pamphlets (0), or flip-charts (1). All weighing scales were always present. Cards and registers were not always present (under five cards [1]; immunization register [2], essential drug cards [2], and notifiable disease report forms [2]).

Preventive Services and Systems

- All facilities were opened 5.5 days weekly from 7:30 to 4:30 (Appendix VII). All were observed to open reasonably promptly. Two charged variable amounts for cards, services, and/or drugs. All had copies of national treatment guidelines (1993).
- Immunization services were not scheduled every day. They were de facto given one day a week at one, and three days a week at the other; the facility without an operating refrigerator intends to offer immunizations thrice weekly. Tetanus toxoid was not maximally available. Two gave it only to pregnant women (rather than to all women of reproductive age); and at one it was only available at antenatal clinic (rather than also during under fives clinic).
- Family planning services were available at two facilities (one day weekly), one of which had a stock-out in the last 3 months. Examination and counseling area was inadequately private in one facility, and neither had a light to facilitate internal pelvic examinations.
- All received scheduled, supervision from the District Health Officer (DHO) and his team. Supervision activities included: reviewing immunization technique (1), updating current information (2), discussing outreach (1), reviewing reports (1), discussing supplies and equipment (1), and discussing problems (1). No facility received feedback after the visit.
- The health information system involved monthly submission of reports, keeping a copy, and using the information for following trends (1), disease surveillance (1) or assessing targets (1). We neglected to inquire fully about decisions made from the data, however.
- No facility had a map of its communities. Only one had an estimate of its catchment population, and the staff gave no evidence of using the figure for planning. All conducted outreach clinics. However, clinics did not track

their performance in meeting their obligations (5 of 5, 3 of 3, and 3 of 7 for May). Support to community-based providers was not strong. None supervised traditional birth attendants. No facility knew the details of any of the 3 recollected maternal deaths from near-by communities. No HSA report was received for the previous month, because no health assistants (the individual who usually supervised the HSA) were in place. On the other hand, all health centers perceived that villagers were either very (1) or somewhat (2) satisfied with their services. Evidence included willingness to pay and unwillingness to be referred onward from these Chilipa area facilities.

Community Perceptions

- Eleven of the twelve village chiefs we interviewed had much praise for the health centers. Only one was completely dissatisfied. Most commonly mentioned positive factors were: disease treatment (3), ambulance (2), drugs (2), and free government services (2). Other observations occurring once were: outreach clinics, good staff attitudes, in-patient capability, fair prices, referral practices, family planning services, overall services, and chlorine.
- Similarly, 11 had suggestions for improvement. One was totally satisfied and found no room for improvement. Suggestions included: increasing maternity and/or ward beds (3), free drugs (3), more drugs (2); and one each for: ambulance, lower fees, waiting room, more staff, and government control. One chief also wanted the MOH to provide him a free dwelling. The "Pathway to Survival"² and its PVO adaptation³ emphasize household-, community- and facility-level factors for reducing child mortality in developing countries. The health facilities in Chilipa directly involve: care-seeking, quality of care provided, referral and post-consultation home care practices. They have an important indirect role in the home care practices of illness recognition and home care through supporting community-based volunteers (TBAs and VHPs) or MOH staff (HSAs). This strategy is equally applicable to maternal health as well. Key steps are: (1) illness recognition, (2) home care, (3) care-seeking, (4) quality of care (at all levels), (5) referral, and (6) continued home care.

Interpretation

² Waldman R, A.V. Bartlett; CC Campbell; R.W Steketee; *Overcoming Remaining Barriers: The Pathway to Survival*. Arlington (VA): BASICS Project, 1996

³ Marsh D.R.; unpublished document, Westport (CT): Save the Children/USA, 1997.

- We suspect that mothers are appropriately seeking care at health centers, at least for their children. Curative (if not preventive) services are available. We did not assess geographic accessibility. Economic accessibility may be an issue for some, but cultural accessibility does not seem important. Some aspects of quality of care are in place, but overall strengthening, especially with regard to management of sick children and drug supplies, is needed. We did not assess referral practices; however, health centers do receive and send referrals, for which patients are appreciative. Given the constraints of existing communications, roads, and ambulances, MOH and/or communities might consider local bicycle-ambulances⁴ (from village to HC), and an in-depth general review of the transport and alarm system guided by UNICEF/WHO indicators. *Continued home care* is of concern because mothers did not recall drug regimens. Finally, *illness recognition* and home care will likely deteriorate unless health centers assume a more “central” role in the health of their communities, including supporting community-based personnel.

Issues and Actions

- I Quality of care needs strengthening in the area of sick child management, particularly “general danger signs” and physical examination. Also, IMCI is not truly “integrated”, in that assessment and response to nutrition and immunization (children and mothers) status are missing. While practice probably is better since the recent IMCI training work-shop, improvement will not be sustained without continued support and performance aids.

- A Develop IMCI QA check-lists with trainees for self-, peer-, and MOHP-monitoring; enlarged wall-charts of IMCI algorithm; supportive clinical review (guided by same check-lists); train MOHP trainer for IMCI training and support

- I Mothers have a weak understanding of drug regimens, despite counseling by dispenser. Mothers seem reluctant to ask questions, even if they may have some.

- A Whoever dispenses and explains drugs and dosages should ask the caretaker to repeat the instructions to assure better understanding.

- I Many essential drugs are not available at every health center.

⁴ UNICEF. *Bicycle ambulances in Malawi*, unpublished project notes, New York: 1997.

- A** Drug logistics need review. Reorder levels need to be established. Alternative sources of life-saving drugs, including borrowing from DRFs, need to be explored.
- I** EPI (U5 and TTV) are only available on select days, and one facility has an inoperable refrigerator.
- A** Ideally provide immunizations to children and women of reproductive age on all days. Until refrigerator is repaired, arrange to borrow supplies from nearby facility to maintain immunization schedule.
- I** Content and feedback of DHO and Team's supervision may not be as effective as it could be. Information probably does not guide decision-making as well as it might. For example, IEC materials are not universally evident, and supplies of forms and cards are insufficient.
- A** Orient MOHP and team to health facility assessment tools as useful starting points to measure stronger and weaker areas. Consider cross-facility visits to learn from each other. Supervision should include: (1) achievements, (2) problem-solving; (3) continuing education; and (4) monthly planning. EPI training for mid-level managers (especially EPI targets) a needed example of data for decision making.
- I** Idea of "catchment area" (and responsibility for its defined population) are incomplete. HC staff do not see themselves as part of a team, let alone the "captain" of the team. HSA and TBA supervision do not occur. Staff was unaware of the details of the three community maternal deaths which they identified.
- A** Each facility needs to sketch a map of its catchment area showing its boundaries (contiguous with those of neighboring facilities); villages; HSA coverage; location of TBAs (trained and untrained); and DRFs. Facility staff needs to be trained to support TBAs and devise a supervision schedule. Likewise, HSAs need to report to the facility, even though no HA is in place. HSAs should advocate for health assistants to strengthen their support; in the meantime health centers should supervise and support them. Monthly supportive meetings need to cascade out from the facility. Identify and review all community (and facility) maternal mortality looking for remediable health system factors. DHO Team should seek additional community-oriented providers, such as community nurses and health assistants (to support HSAs).

RH services are, in general, weak. FP services are only available a total of 2 days in a week among the 3 HC, and RH supplies, equipment, drugs, and environment are suboptimal.

- A “Data for decision-making” support visits can prioritize reproductive health elements for response.
- I Transport system for maternal (and presumably other) emergencies is weak.
- A Explore the Kasungu (Malawi) experience with bicycle-ambulances. Review UNICEF/WHO “alarm and transport” indicators with District Health Management Team.

PROJECT ACHIEVEMENTS

Conceptual Framework and Developmental Relevance

- The Chilipa Child Survival Project has been designed with the goal of empowerment at the community level. From the perspective of Development and Primary Health Care as envisioned at Alma Ata in 1978, the project is brilliantly conceived and creatively implemented.
- The Chilipa project has the potential to serve as a model for rural Mangochi District, Southern Region, and Malawi.
- Across the board from mothers to VHPS, to VHATs, there is a nearly unanimous sense of accomplishment, village improvement, and a sense of ability to identify and solve problems.
- Six independent and equally important development partners have been created and nurtured: mothers, VHPs, TBAs, DRFs, VHATs, HSAs. However, these are at the present weakly linked. Four actions, currently underdeveloped, are needed to achieve and sustain the desired vision of empowerment: 1) the concept of the HC Catchment area as a definitive area of opportunity and responsibility (including a detailed hand drawn area map); 2) a sense of a coordinated health team extending from community to HC; 3) development and strengthening of bidirectional linkages which provide services and information at the community level and affirmation, continuing education, problem solving and feedback at the HC and HSA level; and 4) the effective use of data to drive decision-making and actions. The next section of the report, written by the MOH Regional Representative, addresses the key area of team building.
- The Chilipa Project was initially funded for a three year period with an expectation of a 3-4 year extension. When funding did not become available, the project shifted in year 3 (and, through a no-cost extension, year 4) to phase over.

- The brilliant achievements of this project are, however, fragile. Further support in terms of the areas identified above are essential to self-sustaining capacity.

Team Building

Findings

Team building is vital to an institution because it gives direction on what to do, who is to do a particular task, and at what time. It also enables the leader to track what was delegated to check if it was done as expected. ("You get what you inspect, not what you expect").

Achievements

- Project is blessed with a high number of committed enthusiastic people at upper and middle management levels.
- The District Team visits the area regularly, at least once a quarter, to provide problem solving and support.
- SCF leadership has been dynamic at Mangochi and Chilipa levels.

Issues(I) and Potential Actions (A)

- | | |
|---|---|
| I | Supervisory skills are not up to the desired standards |
| A | On-the-job supervisory skills training would strengthen leadership at the HC area level |
| I | Shortages of personnel at HC level limit capacity of HC staff to visit the field |
| A | Work with District Team to develop strategies to enable HC Staff to visit field |
| I | Staff lacks tools (job aids) to develop knowledge and skills of those working at community, area, and HC levels. |
| A | Develop, test, and make available job aids on key tasks related to MCH, e.g., interpreting the slope of the growth curve and using it to counsel mothers. |

Meetings are an underutilized method of team building, continuing education, problem solving, and morale building.

- A Use a cascade approach to CE with monthly meetings at HC level (HC Staff and HSA) and community level (HSAs, VHP, VHAT, and TBAs).
- I Data are not used at community or HC level to monitor progress and to identify and solve problems.
- A Identify key decisions driven by data. Refocus data collection, analysis, and use on those indicators that lead to action and make a difference.
- A Coordination between SCF and MOH, while improved, is still not optimal.
- I Utilize opportunities, like this evaluation, to have MOH and SCF work together in program monitoring and supervision.

Progress Toward Objectives

- CSSP Guidelines require a baseline KPC and a repeat KPC Survey at the time of the final evaluation.
- The March 1994 DIP outlined 15 project objectives. Progress toward most, but not all, of these objectives have been measured by the baseline, midterm, and final KPC surveys (Table 6).

Table 6. Progress Toward Project Objectives

Intervention Objective	Baseline KPC 1993	Mid-Term KPC 1995	Final KPC 1997	Interpretation
<u>Immunization</u> 70% coverage by 11 mos (12-23 month coverage)	53.1		35%	The small numbers of children in the 12-23 month group (less than 90) and the wide range being used in the survey (0-5 years) make interpretation of coverage data difficult. Service statistics are often much more valid and useful for interpretation. They suggest that coverage levels have been maintained (see cover graph).
<i>DPT 1 coverage</i>	76.9	95.8	92.0	DPT 1 coverage, a measure of access, has increased and has been maintained.
Drop Out Rate (DPT3-DPT 1 expressed as %)	11.6	6.6	20.0	Drop out rates at this level are worrisome and suggest a problem in EPI operations in terms of rapport or service delivery. Absence of refrigerator at Kapiri could be a factor.
Measles Coverage	59.2	85.8	65.0	Low Measles coverage is of concern and needs to be addressed before the expected Measles season.
TT Coverage increased from 44% to 60%	43.7	76.6	64.3	TT rates are increased over baseline, but went down from that achieved in 1995. In view of anecdotal reports of NNT, capacity of VHPs to identify and refer women at risk needs to be strengthened.

CDD 60% of households with children <2 (actually <%) know how to prepare ORT		76.9		
Signs indicating need for treatment/referral	Weakness 38.3 Prolonged 28.8 Fever 25.5 Dryness 3.4	Prolonged 55.0 Dehydration 44.2 Weakness 25.6 Fever 16.5 Blood 4.1	Dehydration 52.0 Prolonged 45.0 Weakness 45.0 Fever 23.0 Blood 6.0	KPCs demonstrate improved public awareness of appropriate signs indicating a need for diarrheal treatment. Especially notable is the increased recognition of dryness as a sign indicative of treatment. Recognition of persistent diarrhea and dysentery has increased.
50% of cases of diarrhea in children <2 with diarrhea in two weeks treated with ORT	ORS 12.4% SSS 24.1%	ORS 56.5	ORS 67.0	Targeted objective has been exceeded. Coverage, however, without indicators of quality, are of little value. Final survey showing 92% of respondents knew to mix 1 packet with 3 "coke" bottles is indicative of an effective diarrheal program. Evaluation finding of good levels on mixing and administration increase the credibility of these figures.
% using antidiarrheal medicine	37.9%	40.0	41.0	This figure has remained the same. Without clarification as to what has been given, the question is of uncertain value.
<u>ARI</u> % of mothers who sought appropriate treatment for ARI (better - mothers of children with ARI in last two weeks who appropriately sought care)	89.4%			Question was not included on final KPC. Establishment of DRF and good VHP knowledge shown in field on use of cotrimoxazole suggest major qualitative improvements in the program.
<u>Malaria</u> 60% of children with fever in the last two weeks will have been treated by MOH protocol.	CQ 34.9 SP 26.7 Antipyr 24.4		Health Center 54.7 with Medicine 43.3	Evaluation strongly suggests that program has been effective in implementing the change in national policy from chloroquine to Fansidar. Only 1 of the 93 mothers reported use of chloroquine. Most were knowledgeable and sought SP/Fansidar.
<u>Nutrition GM, VitA</u> 60% of mothers know they should exclusively breast feed for 4-6 months (actually 3 months)				Program has not been effective in implementing an exclusive (0-3 month) breast feeding policy
60% of infants will receive appropriate weaning foods at 4-6 months	40.6% know		Current Practice 1 mon 50 2 mon 71.4 3 mon 55.6 4 mon 90.9 5 mon 100	As evidenced by the final evaluation, solids are being introduced by 5 month of age. Quality of those solids is not known.
75% of children will be weighed 4x/yr (actually weighed in last 3 months)	91.3% in 4 months	90.0 in 3 mos	78.3 in 3 mos	While weighing coverage is at commendable levels, the evaluation team was not convinced that data are being used for counseling.
85% of children attending GM sessions in last 3 months will receive VIT A (actually - all children in 6 months)		32.6	36.3 in 6 mos	Vitamin A levels, while improved over their reported absence at baseline, are not adequate for this poor, underserved population. Community system in place has the capacity to achieve and maintain 90% coverage.

Maternal Care 50% pregnant women will receive 2 prenatal visits	88.7% =>1		Not measured on final survey	Staff reports levels remain high
50% births will be attended by trained TBA or midwife			Not measured on final survey	Project's training of 20 TBAs has achieved progress toward this goal (see section on TBAs)
20% of women will receive post-partum check			NA	
25% of women with children under 2 who don't want a child in 2 years practicing family planning (presented as all women and those women not wanting children)	21 of 249 (8.4%) not pregnant 21 of 177 (11.9%) not wanting child	16 of 236 (6.8%) not pregnant	31 of 273 (11.4%) not pregnant women are using modern methods of contracep'n	Rate is not significantly different than baseline. VHPs provide an excellent opportunity to increase availability and use of modern contraceptives.
AIDS 60% of mothers of children under two know 3 ways to prevent AIDS transmission	No Bar girls 60.3 Condoms 18.6 1 Partner 16.6 Abstinence 6.1	Abstain 59.1 Razor BI 33.5 1 Partner 28.5 Condoms 25.6	Abstain 77.0 Condoms 42.0 Razor BI 43.0 1 partner 16.0	Pattern in response to causes of AIDS shows an increased knowledge of the importance of abstinence. Razor blades, a legacy of the previous administration's denial of the AIDS problem, remains an issue.
% of females and males that used a condom with last non-regular sex partner			NA	
Literacy 10% of illiterate women of CBA will become literate	21.7% literate		NA	Probably increased due to program's effective implementation of literacy program.

- For a child survival project whose period of implementation was essentially limited to two years and which, as described above, did not involve the health centers' providers, the progress made was commendable.
- Improvements described above can be attributed to the strengthening of promotion and service delivery at the community level.
- Developing a health center team responsible for health, together with strengthening the linkages among components, is expected to further increase levels of coverage.

Sustainability

- Bossert⁵ identified four factors associated with sustained benefits in completed USAID health projects in Africa and Central America (note - not programs): 1) Concordance of MOH and project goals; 2) Phased inclusion of project costs into the MOH operational budget; 3) Duration of

⁵ Bossert T, Sustainability. Social Science and Medicine.

period of assistance (project=> then 7 years); and 4) mutually respectful negotiation process (the equality in respect and decision making)

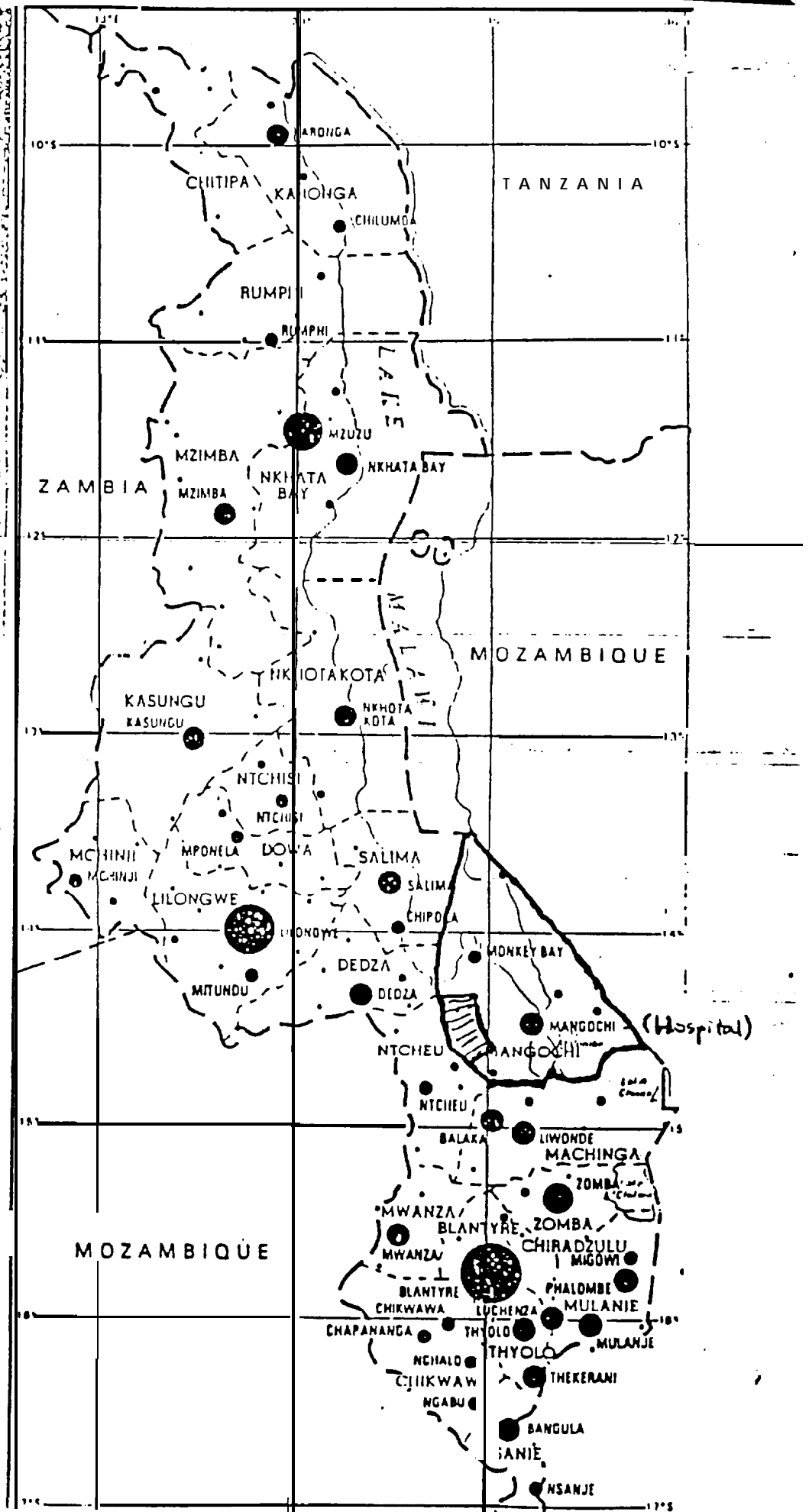
- Based on the separation of the project from MOH and the brief duration of implementation, the probability for sustaining its impressive results without additional inputs is low. Many of the essential elements needed to sustain the creative and developmentally sound innovations are fragile.
- When SCF was notified that the expected extension funding would not occur, the project creatively addressed the issue of phase-over and sustainability with the District Health Officer at a meeting on November 1, 1995. Plans were made to phase-over, strategy by strategy: EPI and Under Fives by 9/95, FP by 2/96, and DRF by December 1996.
- For two reasons, this phase-over is still incomplete: 1) MOH hired only 5 of 20 HSA critical to program implementation and support, and 2) phase-over did not effectively address the structural changes needed to develop and support a Health Service Area Team approach to planning, implementation, and monitoring. Follow up meetings to work on phase-over were held on 3/4/96 and 13/11/96. Progress toward the phase-over is continuing. However the SCF Office and supervisors are still carrying out key coordination and support roles.

CHAPS Project

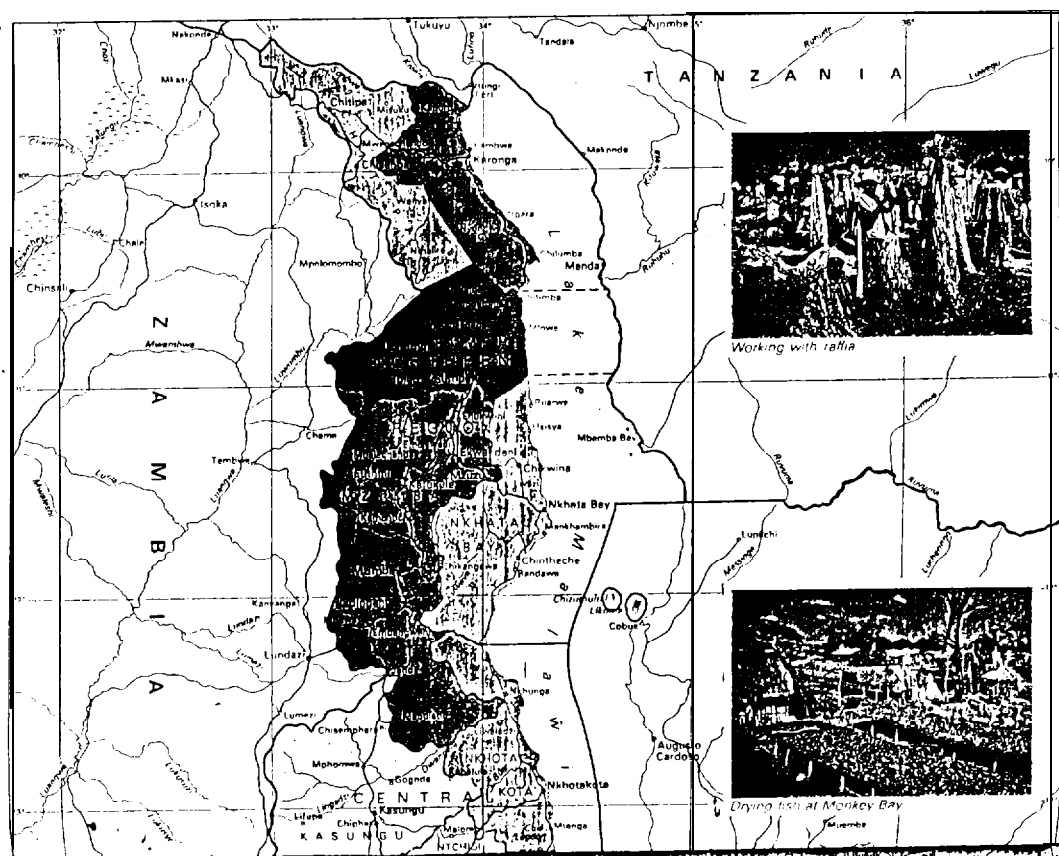
- USAID is currently in the final stages of competition for a series of projects to support management and implementation at the district level.
- Implementation will be carried out by a joint partnership of the district team and an NGO. Mangochi is one of 8 districts potentially eligible for funding.
- Award of one of the grants to Mangochi District would build on the experience of CS IX and has the potential to address many of the issues related to sustaining benefits identified in this report.
- The Chilipa Project is a visionary project which has effectively addressed the single largest barrier to health improvement: the incorporation of the community as active partners (not participants) in the delivery of health services. Lessons learned from this project need to be made available to all CHAPS awardees to facilitate their early implementation stages.

EVALUATION CONCLUSIONS

- From the traditional perspective of evaluating USAID funded child survival projects using the KPC Surveys, the Chilipa Project has, despite its truncated period of implementation, successfully met or exceeded most all its objectives,
- In terms of creatively addressing the critical issue of ownership at the community level, the project has been spectacularly successful. Among the near dozen USAID Child Survival Projects known to the Evaluation Team Leader, it is clearly a best buy.
- Due to a number of legitimate, as well as bureaucratic, obstacles, the project did not address from the beginning the need for structural integration of Health Facility and Community Services. Many of these issues can begin to be addressed over the final 3 months of the project.
- In its current format the essential support structures and linkages essential to supporting and sustaining the activities are not in place.
- Additional support, possibly through the CHAPS project, will be required to ensure the maintenance and sustainability of a project which has the potential to significantly improve survival and wellness among an extremely poor, high risk population.



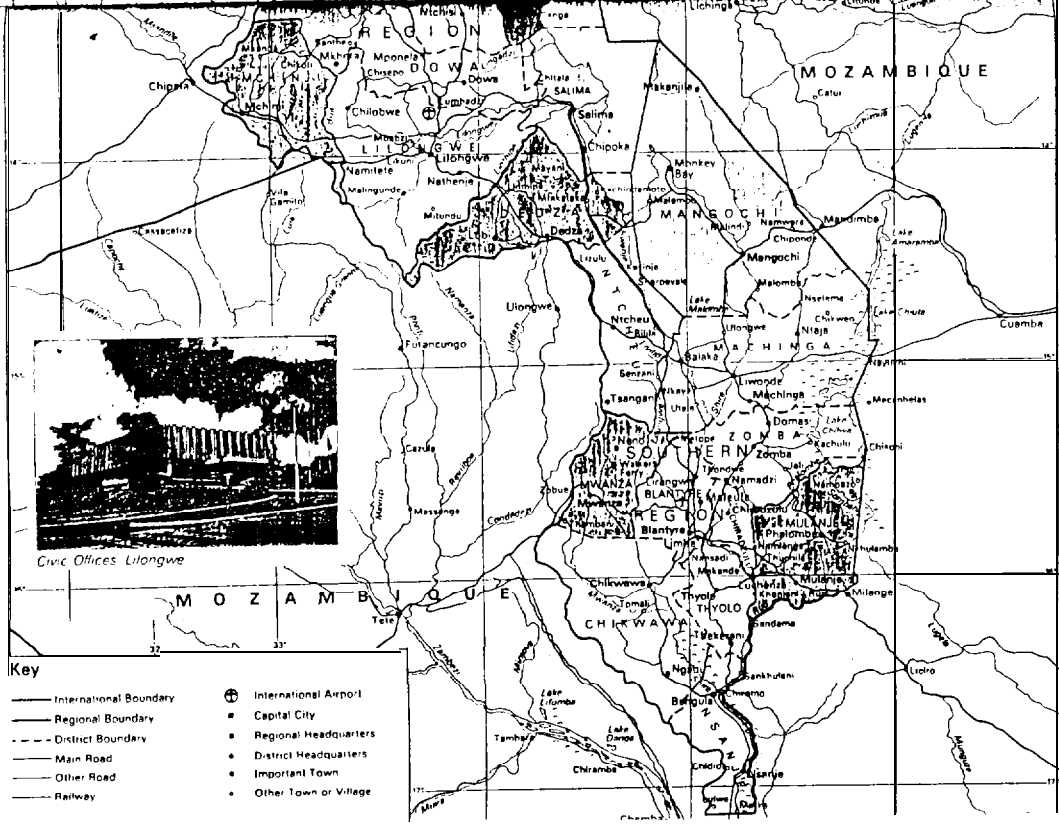
Malawi Administration and Communications



Working with raffia



Drying fish at Monkey Bay



Civic Offices Lilongwe

- Key**
- International Boundary
 - Regional Boundary
 - - - District Boundary
 - Main Road
 - Other Road
 - Railway
 - ✈ International Airport
 - Capital City
 - Regional Headquarters
 - District Headquarters
 - Important Town
 - Other Town or Village

APPENDIX II

Reference Materials Reviewed

92	Malawi Demographic and Health Survey
93	Maternal Health Assessment -Chilipa Impact Area
1 0/93	Child Survival V - Final Evaluation Report
3/94	Baseline KPC Survey
3/94	Detailed Implementation Plan
9/94	Malawi Revolving Drug Fund
10/94	CS IX Year I Report
	Supervisory Checklist for the HSAs by Health Supervisor
6/95	Mid-Term Evaluation
1 1/1/95	Chilipa Health Planning Meeting
30/4/96	DHO/SCF Meeting Notes
5/96	CS-IX Final Evaluation Guidelines
10/96	Third Annual Report
11 /1 3/96	Chilipa Health Meeting Notes
96	Malawi KAP Preliminary Report
1 /97	Vision Statement - SCF Health Prog Mgmt: District & Beyond
4/97	Preparation for Final Evaluation
5/97	KPC Survey
5/97	Scope of Work Final Evaluation

APPENDIX III

Chronology of Project Implementation

1 0/93	Project Began
1 1/93	Project Borders Defined
3/94	Train HSAs with Government Curriculum (4 weeks and 4 weeks) Detailed Implementation Plan
5/94	Family Enrollment (48 villages)
6/94	Recruit Village Health Promoters (VHPs)
7/94	Train VHPs
8/94-9/94	Compiling by VHPs of rosters Children <5 and WCBA
1 0/94- 11/94	Training of Village Health Committees
1 1/94	Implementing EPI, CDD, Nutrition, Vitamin A, HIV IEC, and Literacy
5/95	Training of TBAs Expansion in No. of Outreach Clinics from 7 to 20 and finally 15
5/95	Mid-Term KPC
6/95	Mid-Term Evaluation
7/95	ARI, Malaria and FP Implementation
1 0/95-1 2/95	Malaria Project Development of Village-Based Drug Revolving Funds
1 1/95	Develop Plan to Phase-Over to Ministry
1/96-2/96	Consolidation Formation of Village Action Teams (Strengthen VHCs by Assignment of Tasks); Training of 270 members Vitamin A - HSAs and Postpartum Formation of District Project Management Team
5/96-6/96	TBA Training Male Motivator Training
1 1/96	MOH hire 5 of 20 HSAs 8 HSAs assigned to malaria project Turn over of <5 EPI, CDD, and Vitamin A
4/97	IMCI Training
5/97	Final KPC Survey
5/97-6/97	Final Evaluation and Debriefing
9/30/97	End of Project

APPENDIX IVA

Evaluation Team

R M Bwaluzi - Medical Assistant Phirilongwe Health Center - MOH
Joseph de Graft-Johnson - Save the Children, Malawi
Stanley Foster - Emory University, Atlanta GA, USA (Team Leader)
Augustine Chikoko - Coordinator, Mangochi Project
Violet Kamfose - Family Health Office, Regional Office, Blantyre, MOH
David Marsh - Save The Children - Westport CN, USA
Goodie Mhango - St. Martin's Hospital Malindi - CHAM
Zacheus Solomoni - MCH Coordinator - Mangochi District - MOH

Resources

Joy Chipilo - SCF Driver
Shaibou Deula - SCF Driver
Stan Jere - Trainer - Mangochi Project - 1993-1997
Tom Krift - Director, Save the Children (US) - Malawi
Don Matanja - Mangochi District Health Officer
Marcie Rubardt - Team Leader, Mangochi Project, 1993-1996
Harriet Young - SCF Volunteer - 1997

APPENDIX IVB

Evaluation Team Plan of Work

Tuesday May 27	Team Orientation Project Briefing & Read Background Materials
Wednesday May 28	Formulation of Evaluation Questions Creation of Evaluation Instruments Briefing by District MCH Team
Thursday May 29	Visit to three Health Centers in Project Area Visit to One Village in each catchment Area
Friday May 30	Visit with District Health Officer Visit with two villages in each HC catchment area
Saturday May 31	Share Findings from Field Visit
Sunday June 1	Prepare Draft Sections
Monday June 2	Debrief at HC with HC staff, HSAs, and VHPs
Tuesday June 3	Debrief with District Health Officer and District Team
Wednesday June 4	Finalize Draft 1
Thursday June 5	Debrief with SCF/Lilongwe and USAID/Lilongwe

APPENDIX V-A
Health Center Staffing: Kapiri, Phirilongwe, and Chilipa Health Centers

Cadre*	Staffing Pattern			
	<i>ideal</i>	Phirilongwe	Chilipa	Kapiri
Medical Assistant	1	1	0	0
Nurse	1-2	1	2	4
Community Nurse	1	0	0	0
Health Assistant	1	0	0	0
Health Surveillance Assistant	5-7	4	4	3
Hospital Servant	1-2	1	1	?
Ward Attendant	1-2	2	1	2
Ground Laborer	7-2	2	1	?
Watchman	1	1	2	3

* HC management Team consists of: Medical Assistant, Nurse, Community Nurse, and Health Assistant. All nurses are trained as midwives

APPENDIX V-B
Equipment and Supplies: Kapiri, Phirilongwe, and
Chilipa Health Centers* Mangochi, Malawi, May 97

Variable---Expected Number 3 -----Observed #	
Megaphone	0
Flip-chart	1
Counseling cards/pamphlets	0
Adult scales	3
Baby scales	3
Salter scales	3
Cold boxes	2
Needles for medicines	2
Syringes for medicines	2
Immunization Register	2
Under Five Cards	1
Essential Drug Cards	2
Notifiable Disease Report Forms	2

APPENDIX VI
Drugs and Vaccines: Kapiri, Phirilongwe, and Chilipa Health Centers*
Mangochi, Malawi, May 1997

Variable-Expected # 3	Present	notes
Drugs		
Chloroquine	1	
Fansidar	2	
Quinine, injectable	3	
Bactrim	2	
Nalidixic acid	1	
Ampicillin/amoxicillin	1	
Penicillin	2	
Penicillin, injectable	3	
Chloramphenicol, injectable	1	
Paracetamol	2	
Aspirin	3	
Tetracycline eye ointment	2	
Gentian violet	1	
Iron tablets	2	
Vitamin A	3	
Mebendazole/albendazole	1	
Sterile water for injection	3	
IV solution for severe dehydration	3	
Expired drugs	1	1 facility had expired eraotamine
Vaccines		
BCG	1	
OPV	2	
DPT	2	
Measles	2	
Tetanus toxoid	2	
Expired vaccines	0	
Frozen DPT/TTV	0	
Vaccine shortage in last 30 days	2	1 facility with broken refrigerator; another with stock-out of BCG

APPENDIX VII
Health Facility Preventive Services and Systems: Kapiri, Phirilongwe, and Chilipa
Health Centers*
Mangochi, Malawi, May 1997

Variable-Expected Number	3	#	notes
General			
Hours of operation: 7:30-4:00		3	
Days of operations: Mo-Sa noon		3	
Charges for services		2	charge for cards, services, and/or drugs
Drug source: central medical stores		3	
Most important cause of drug delay			transport, CMS stock-out, admin. difficulty
National Treatment Guideline copy		3	
Immunization Services			
Immunizations available every day		0	either 1 or 3 days week, one inoperative refrigerator
Tetanus toxoid given to all WRA		1	
Tetanus toxoid given during U5 Clinic		2	
Reproductive Health Services			
FP stock-out in last 3 months		1	2 facilities with family planning
FP available 1 day/week		2	
Private counseling/examination area		1	
Light source for PV examinations		0	1 with torch without batteries
Routine iron for ANC		0	not enough; only give for anemia
STD syndromic check-list		1	
Supervision Received			
Regular supervisor: DHO and Team		3	
Supervision Visit Schedule		3	
Visit in the last 2 months		3	
Feedback received		0	
Problems		3	transport; training staff, supply and time shortage; feedback; working environment
Discussed problems with supervisor		2	1 confused who is responsible
Health Information System			
Submit monthly reports		3	OPD, FP, U5, EPI, all up to date
Keep copy of reports		3	
Use information		2	look at trends, surveillance, assess targets
Community Linkages			
Map		0	
Estimate catchment population		1	this facility was not sure how to use the #
All outreach clinics conducted (April)		2	80 % of scheduled outreach clinics conducted
TBA supervision in last 3 months		0	1 does not know how; 1 is new to the post
Know village maternal death details		0	3 cases recalled
Receive HSA April reports		0	no facility has a Health Assistant, the usual supervisor of HSAs
Perceived community satisfaction		3	

ACRONOYMS

ARI	Acute Respiratory Infection
ASA	Acetyl Salicylic Acid
BCG	Bacillus Calmette-Guerin
BHR	Bureau of Humanitarian Response
CBA	Child Bearing Age
CDD	Control of Diarrheal Disease
CSSP	Child Survival Support Program
DHO	District Health Officer
DRF	Drug Revolving Fund
DPT	Diphtheria Pertuenia, Tetanus
EOP	Emergency Obstetrical Plan
EPI	Expanded Program for Immunizations
HA	Health Assistant
HC	Health Center
HE	Health Education
HH	Household
HSAS	Health Surveillance Assistants
KAP	Knowledge, Attitudes, Practice
KPC	Knowledge, Practice, and Coverage
MDHS	Malawi Demographic and Health Survey
MOH	Ministry of Health
OPD	Out-Patient Department
OPV	Oral Polio Vaccine
ORS	Oral Rehydration Solution
PHC	Primary Health Care
RFP	Request for Proposal
s s s	Sugar-Salt Solution
TBA	Traditional Birth Attendent
TTV	Tetanus Toxoid Vaccination
VHAT	Village Health Action Team
VHC	Village Health Committee
VHP	Village Health Promoter
WCBA	Women of Childbearing Age
WRA	Women of Reproductive Age

**REPORT OF FINAL KNOWLEDGE,
PRACTICE AND COVERAGE
(KPC) SURVEY**

**SAVE THE CHILDREN
MALAWI FIELD OFFICE**

CHILD SURVIVAL 9

**KNOWLEDGE, PRACTICE &
COVERAGE
FINAL SURVEY**

May 18 - 20, 1997